

Challenges Faced By Malaysian Workers in Using English-Based Digital Technologies

Alyia Yasmin Shamsul Khairi¹, Athirah Mohd Tan^{2*}, Syazwani Yahaya³, Aini Khalida Muslim⁴, Nor Azrul Mohd Zin⁵

^{1,2,4}Fakulti Pengurusan Teknologi dan Teknousahawanan, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia

³School of Business Management, Universiti Utara Malaysia, Kedah, Malaysia

⁵Fakulti Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia

*Corresponding Author

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ABSTRACT

This study explores the factors influencing the usage of English-Based Digital Technologies (EBDT) among Malaysian workers. Specifically, it examines the effects of English proficiency, digital skills, and technology anxiety on technology adoption in modern workplace environments. Using a quantitative, cross-sectional research design, an online survey was administered to a convenience sample of 160 employees representing various industries in Malaysia. Descriptive, reliability, Pearson correlation, and multiple regression analyses were performed using SPSS. The findings revealed that both English proficiency ($r = 0.275$, $p < 0.001$) and digital skills ($r = 0.622$, $p < 0.001$) are significantly and positively correlated with the use of EBDTs. Technology anxiety had a weak positive correlation ($r = 0.161$, $p = 0.043$) but was not a significant predictor in the multiple regression analysis ($\beta = -0.091$, $p = 0.215$). Digital skills emerged as the most critical determinant of technology utilization ($\beta = 0.604$, $p < 0.001$), followed by English proficiency ($\beta = 0.165$, $p = 0.024$). Overall, the model explained 40.7% of the variance ($R^2 = 0.407$, $F = 35.618$, $p < 0.001$). These results underscore the vital importance of upskilling initiatives in both language and technology to support successful organizational digital transformation and enhance workforce productivity in Malaysia.

Keywords: Digital skills, English-based digital technologies, English proficiency, Malaysian workers, technology anxiety.

INTRODUCTION

In the contemporary global business landscape, digital transformation has transitioned from an organizational advantage to a baseline requirement for survival and competitiveness. Within Malaysia, this digital transition is actively encouraged by national policies aligned with Industrial Revolution 4.0 (IR 4.0) and the expansion of the digital economy. Organizations increasingly require their workers to be proficient in using both the English language and digital skills to be productive in a tech-driven workplace [1], [11]. However, this rapid technological integration creates a distinct dual challenge for the workforce: employees must simultaneously possess advanced technical capabilities and proficient language skills to operate in a highly globalized workspace.

Crucially, the vast majority of software applications, communication platforms, operating systems, and AI-driven tools are developed in English. English remains the dominant language of the internet, representing approximately 49.2% of all website content globally, which establishes it as the primary operating language for globalized systems [11]. Consequently, several studies have highlighted that digital skills and English communication skills are becoming essential in technology-driven environments [5]. When workers cannot

understand English commands or technical terminology, they struggle to utilize workplace platforms effectively, which can severely hinder operational performance and digital readiness.

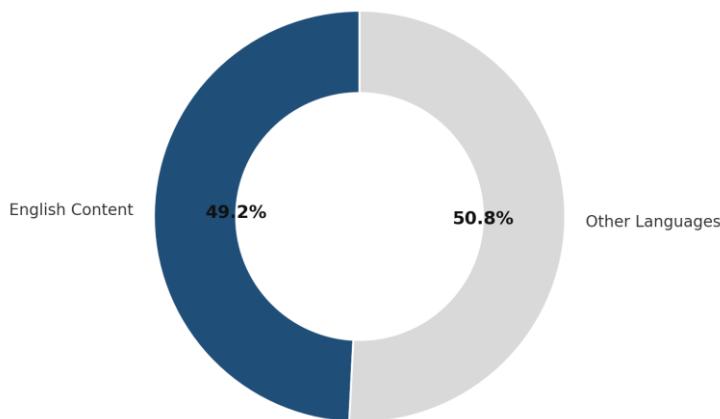


Fig. 1. Website content language distribution worldwide (DataReportal & Ethnologue, 2025).

In addition to skill and language proficiencies, psychological factors such as technology anxiety pose significant barriers. Technology anxiety refers to an individual's state of fear, apprehension, or stress when faced with using computers and digital systems. This emotional distress frequently causes employees to avoid adopting unfamiliar platforms, take longer to adapt, and display lower professional self-efficacy [6].

Despite the growing body of literature on digital literacy and English proficiency in isolation, a critical gap exists in understanding how these dual demands simultaneously affect the actual usage of English-based digital technologies (EBDT) at the employee level. While prior research has extensively analyzed linguistic needs in service sectors [4] or evaluated digital competencies in educational environments [3], [19], [8], very few studies examine how technical skills and language proficiencies interact with psychological barriers in corporate settings. The novelty of this study lies in addressing this specific empirical gap by integrating the Technology Acceptance Model [7] with English Communication Apprehension Theory [13] to construct a unified framework. By simultaneously analyzing English proficiency, digital skills, and technology anxiety [6], [15], [18] among active Malaysian employees, this research provides unique, empirical insights into worker-level barriers during organizational digital transformation.

To address this gap, this study aims to explore the relationship between English proficiency, digital skills, and technology anxiety on the actual usage of English-based digital technologies among Malaysian employees. The primary objectives are: (1) to determine the effect of English proficiency on EBDT usage; (2) to investigate the influence of digital skills on EBDT usage; and (3) to analyze the impact of technology anxiety on workers' use of EBDT in Malaysia.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A. English Proficiency in the Digital Era

In modern workplaces, English serves as the lingua franca of business, information technology, and scientific advancement. Because digital platforms and interfaces are predominantly designed in English, basic English proficiency has evolved into an essential digital competency [5]. Employees with high English proficiency are better able to interpret complex user instructions, follow operating system prompts, and master communication technologies. Zulfadli and Husin [20] demonstrated that higher English communication confidence directly enhances overall workplace productivity. In Malaysia, where English is widely used in business, the service and technology sectors have experienced an increased demand for English-literate personnel [4]. Conversely, Jaffree et al. [9] highlighted that a lack of English communication skills leads to apprehension and avoidance of digital channels, reducing an employee's capability to participate in technology-mediated communication.

B. Digital Skills as a Driver of Productivity

Digital skills comprise the technical and cognitive capabilities required to access, manage, and evaluate digital tools and networks. Rather than simple computer literacy, modern digital skills entail critical engagement with online systems to solve complex organizational problems [3]. Tee et al. [17] underscored that Malaysian employers place immense value on digital competencies, identifying them as core determinants of employee agility and performance. While digital upskilling is widely offered, employees frequently struggle to transition theoretical training into actual, hands-on tasks at work, especially when faced with unfamiliar systems [12]. Thus, developing practical digital skills is critical for enhancing workplace performance.

C. Technology Anxiety as a Barrier

Technology anxiety is a negative affective response characterized by fear, tension, and apprehension towards interacting with digital tools. This psychological barrier can severely impede technology acceptance and usage [15]. In workplace environments undergoing rapid digital transition, technostress and technology anxiety are highly prevalent, often leading to emotional exhaustion and reduced job performance [6]. To mitigate these negative effects, researchers have suggested that organizational support, proper training, and individual resilience are essential to cushion the psychological strain of continuous digital updates [16].

D. Theoretical Integration

This research is grounded in the Integration of the Technology Acceptance Model (TAM) [7] and the English Communication Apprehension Theory [13]. According to TAM, a user's acceptance and usage of a technology are determined by its Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). In this context, employees with superior digital skills are likely to view EBDTs as easy to use and highly useful, directly increasing their actual usage. Conversely, English Communication Apprehension Theory explains how anxiety related to language use can lead to digital avoidance. When employees possess low English proficiency, their apprehension towards communicating in English translates into technology avoidance, since they perceive English-based interfaces as highly complex and difficult to navigate.

E. Conceptual Framework and Hypotheses

The conceptual framework for this study establishes English Proficiency, Digital Skills, and Technology Anxiety as independent variables (IVs), with the actual Use of English-Based Digital Technologies (EBDTs) as the dependent variable (DV). This structure is illustrated in Fig. 2.

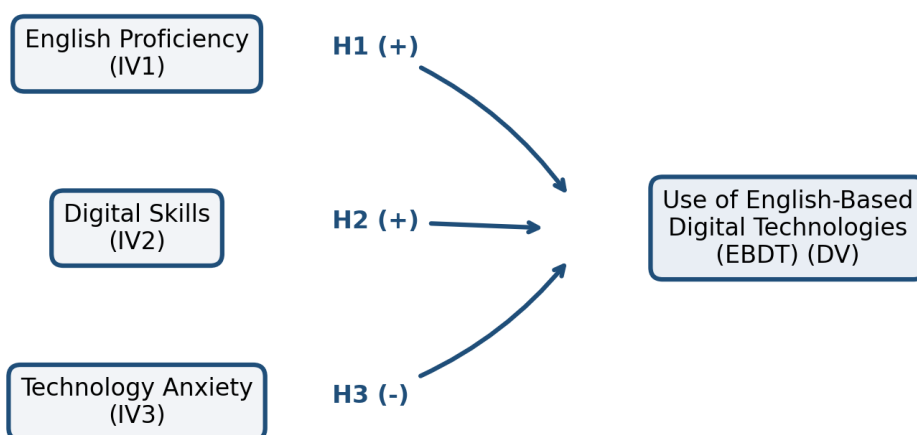


Fig. 2. Conceptual Research Framework of the Study.

Based on the theoretical linkages and empirical gaps, the following hypotheses are formulated:

H1: There is a significant relationship between English proficiency and workers' use of English-based digital technologies among Malaysian workers.

H2: There is a significant relationship between digital skills and workers' use of English-based digital technologies among Malaysian workers.

H3: There is a significant relationship between technology anxiety and workers' use of English-based digital technologies among Malaysian workers.

RESEARCH METHODOLOGY

A. Research Design

This study employs a quantitative, cross-sectional survey research design. This methodology is highly suited for identifying relationships, estimating effects, and testing specific hypotheses regarding the factors that influence the utilization of English-based digital technologies in Malaysian corporate environments.

B. Population and Sampling

The target population comprises active employees in Malaysia across multiple sectors (including services, finance, and technology). A convenience sampling method was used due to its practicality and speed in data collection. An online structured questionnaire was distributed, yielding a final sample of 160 valid respondents who actively use digital tools as part of their professional tasks.

C. Measurement Instrument

The online survey instrument was divided into demographic profiles and specific construct scales. The constructs measured include English Proficiency (IV1), Digital Skills (IV2), Technology Anxiety (IV3), and actual Use of English-Based Digital Technologies (DV). All item responses were collected using a standard 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

D. Statistical Analysis

Statistical Package for the Social Sciences (SPSS) was used for data processing. Analyses performed included: (1) descriptive frequency analysis of demographics; (2) Cronbach's alpha reliability analysis to evaluate internal consistency; (3) skewness and kurtosis normality checks; (4) Pearson correlation analysis to establish bivariate relationships; and (5) multiple regression analysis to identify the unique and relative impact of the independent variables on the dependent variable.

RESULTS AND ANALYSIS

A. Respondent Demographics

Of the 160 total respondents, 72 (45.0%) were male, and 88 (55.0%) were female. The largest age group was 26-35 years, accounting for 39.4% of the sample. In terms of educational qualifications, 46.3% possessed a bachelor's degree. Regarding work experience, 44.4% of the participants had 1 to 5 years of professional tenure. Daily usage of digital tools was reported by 41.3% of the respondents, indicating high exposure to digital technologies in modern offices.

B. Scale Reliability and Normality

To ensure internal consistency, Cronbach's alpha coefficients were calculated. As shown in Table I, Digital Skills ($\alpha = 0.782$) and Technology Anxiety ($\alpha = 0.805$) exhibited good reliability, and Use of EBDTs had acceptable reliability ($\alpha = 0.714$). Although English Proficiency had a lower alpha ($\alpha = 0.599$), which is lower than other constructs in this study and suggests only moderate internal consistency. Because of this, results involving English proficiency should be interpreted cautiously. The overall composite reliability was 0.853, indicating good internal consistency for the measurement items.

Table I Reliability Test Results

Variable	Cronbach's Alpha	Interpretation
English Proficiency (IV1)	0.599	Acceptable
Digital Skills (IV2)	0.782	Good
Technology Anxiety (IV3)	0.805	Good
Use of EBDTs (DV)	0.714	Good

Normality tests using Skewness and Kurtosis were conducted. As presented in Table II, all skewness and kurtosis values fall comfortably within the acceptable range of -2.00 to +2.00, confirming that the data meets the assumptions of normality required for parametric statistical analysis.

Table II Normality Test Results

Variable	Skewness	Kurtosis	Status
Use of EBDTs (DV)	0.326	-0.471	Acceptable
English Proficiency (IV1)	0.805	-0.908	Acceptable
Digital Skills (IV2)	0.679	-0.484	Normal
Technology Anxiety (IV3)	-0.800	0.002	Normal

C. Pearson Correlation Analysis

Pearson correlation coefficients were computed to assess the bivariate relationships between variables (Table III). Digital Skills had a strong positive correlation with Use of EBDTs ($r = 0.622$, $p < 0.001$). English Proficiency had a moderate positive correlation ($r = 0.275$, $p < 0.001$). Interestingly, Technology Anxiety exhibited a weak but significant positive correlation with Use of EBDTs ($r = 0.161$, $p = 0.043$).

Table Iii Pearson Correlation Results

Variable	EP (IV1)	DS (IV2)	TA (IV3)
Use of EBDTs	0.275**	0.622**	0.161*
Sig. (2-tailed)	<0.001	<0.001	0.043
N	160	160	160

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

D. Multiple Regression Analysis

Multiple regression analysis was conducted to examine the simultaneous impact of the three factors (Table IV). The overall regression model was highly significant ($F = 35.618$, $p < 0.001$) and explained 40.7% of the variance ($R^2 = 0.407$, $R = 0.638$). Digital Skills was the strongest predictor ($\beta = 0.604$, $p < 0.001$), followed by

English Proficiency ($\beta = 0.165$, $p = 0.024$). Crucially, Technology Anxiety had a negative and non-significant effect ($\beta = -0.091$, $p = 0.215$) once other variables were controlled.

Table IV Multiple Regression Coefficients

Predictor Variable	Beta (β)	p-value	Result
English Proficiency	0.165	0.024	Significant (+)
Digital Skills	0.604	<0.001	Significant (+)
Technology Anxiety	-0.091	0.215	Not Significant

Based on these findings, H1 and H2 are fully supported. H3 is rejected because, despite a positive bivariate correlation, Technology Anxiety does not significantly predict EBDT usage when analyzed alongside English proficiency and digital skills. The hypothesis decisions are summarized in Table V.

Table V Summary Of Hypothesis Testing Results

Hypothesis Statement	Statistical Result	Decision
H1: English Proficiency → EBDT Use	$r = 0.275$, $p < 0.001$	Accepted
H2: Digital Skills → EBDT Use	$r = 0.622$, $p < 0.001$	Accepted
H3: Technology Anxiety → EBDT Use	$r = 0.161$, $p = 0.043$	Rejected (in regression)

DISCUSSION

A. The Crucial Role of Language Proficiency

The significant predictive power of English proficiency on EBDT usage validates the academic contributions of McCroskey [13]. In [13] McCroskey, the construct of communication apprehension was conceptualized as a primary psychological barrier that drives language avoidance behaviors. This directly aligns with Statement [13], which outlines how low proficiency translates into elevated apprehension when communicating through English-based mediums. Because almost half of global web content is English-based, lower communication confidence naturally impairs a user's willingness to engage with software interfaces. To reinforce this critical discussion, similar findings are reported by Xia and Zhang [19] and Istanto et al. [8], who showed that language proficiency directly enhances digital literacy and reduces system navigation errors. Likewise, this finding is supported by Jaffree et al. [9] and Zulfadli and Husin [20], where workplace communication confidence was found to be essential for reducing avoidance behavior associated with technology-mediated professional interactions.

B. Digital Competency as the Dominant Predictor

Digital skills emerged as the most critical determinant of technology utilization, confirming the foundational principles of the Technology Acceptance Model pioneered by Davis [7]. Specifically, in [7] Davis, it is argued that the adoption of any new technology is heavily moderated by the user's perception of its usefulness and ease of use. This empirical result supports Statement [7], which posits that a user's technical capability directly improves their perceived ease of use, thereby fostering higher actual utilization. To support this critical discussion, similar findings are presented by Tee et al. [17] and Audrin et al. [2], which demonstrate that digital competencies are highly valued by modern employers and act as critical drivers of workplace adaptability and operational productivity. On the other hand, Lopes et al. [12] present a slightly contradicting finding, showing that while workers appreciate digital upskilling, they frequently experience practical, task-

level difficulties when attempting to apply theoretical digital training directly into actual hands-on workspace scenarios.

C. The Paradox of Technology Anxiety

Lastly, the non-significant regression effect of Technology Anxiety on EBDT usage stands in contrast to the historical empirical baselines outlined by Meuter et al. [15]. In [15] Meuter et al., technology anxiety is shown to exert a strong, direct negative influence on a user's acceptance and usage of self-service technologies. Statement [15] asserts that elevated anxiety triggers active avoidance of technical interfaces. However, the regression model in this study reveals that when linguistic and digital competencies are controlled, anxiety's effect becomes negligible. This represents an occupational 'compulsion to use' or situational necessity in modern offices. To support this discussion, similar findings from Wilson et al. [18] and Meng et al. [14] demonstrate that digital and communicative skills act as strong buffers, rendering the psychological impact of technology anxiety statistically non-significant in active professional settings. Conversely, Claire Jimmy et al. [6] and Mokhtar et al. [16] emphasize that technostress and technology anxiety can still cause severe psychological exhaustion and reduce general job satisfaction if proper individual resilience and organizational coping support systems are not actively maintained.

Limitations

This study has several limitations that should be considered when interpreting the findings. First, convenience sampling was used, with 160 respondents from various industries in Malaysia. This sampling method may limit the generalizability of the findings to the wider Malaysian workforce. Because of this method the findings might not apply well to the Malaysian workforce. Second, this study used a cross-sectional design, meaning that data were collected at one point in time. Therefore, the study cannot establish causal relationships between the variables. Third the English Proficiency scale gave a Cronbach's Alpha of 0.599 which's noticeably lower than the values, for the other constructs. This shows that the measurement of English Proficiency must be taken with caution. Future research should think about making the measurement scale and checking each questionnaire item to make English Proficiency more reliable.

CONCLUSION AND RECOMMENDATIONS

In conclusion, this study has successfully achieved all its research objectives, providing robust empirical evidence on the determinants of English-based digital technologies (EBDTs) usage among Malaysian workers. In alignment with the first objective, English proficiency was proven to be a significant positive predictor of technology utilization ($\beta = 0.165$, $p = 0.024$), demonstrating that language skills are vital for navigating modern tech interfaces. For the second objective, the study established that digital skills are the most critical and dominant driver of technology usage ($\beta = 0.604$, $p < 0.001$), highlighting technical competency as the baseline for workforce productivity and organizational agility. Regarding the third objective, the analysis revealed that while technology anxiety is weakly correlated with technology use ($r = 0.161$, $p = 0.043$), its impact becomes statistically non-significant in a controlled regression model ($\beta = -0.091$, $p = 0.215$) due to an occupational 'compulsion to use' where workers must adopt these tools regardless of psychological apprehension. Future studies should consider using a larger sample size to improve the generalizability of the findings. Where feasible, future studies should use probability sampling to obtain a more representative sample across different industries, occupations, age groups, and educational backgrounds. Future research should examine and improve the English Proficiency measuring scale to increase its reliability and accuracy. Furthermore, each questionnaire items should be explained and justified in greater detail to ensure that the measurement instruments are acceptable for the study context. Longitudinal studies may also be used to gain a better understanding of the links between English proficiency, digital skills, technology anxiety, and the use of English-Based Digital Technologies.

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